

## Regional Council Workshop

**Date:** 24 April 2024  
**Time:** 11.00am  
**Venue:** Council Chamber  
Hawke's Bay Regional Council  
159 Dalton Street  
NAPIER

## Agenda

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Item	Title	Page
1.	Welcome/Karakia/Apologies	
2.	Flood Resilience Strategy	3

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**Subject: Flood Resilience Strategy**

**Reason for report**

1. This item provides an update on the Council's Flood Resilience Strategy by Asset Management Group Manager Chris Dolley.
2. A copy of the powerpoint presentation is attached for the Council's information, and will guide the workshop discussions.

**Authored and Approved by:**

**Chris Dolley**  
**Group Manager Asset Management**

**Attachment/s**

- 1 [↓](#) Asset Management Strategy workshop presentation



# Flood Resilience Strategy Session

24 April 2024





## Flood Resilience – fine print



- Does not incorporate in today's discussion
  - Coastal Strategy
  - Water Security
  - Regional Parks

# History of Key Decisions

## 2015 LTP

Consultation to upgrade Heretaunga Flood Control Scheme to 0.2 Annual Exceedance Probability  
Commitment to consult on Upper Tukituki Scheme in following years

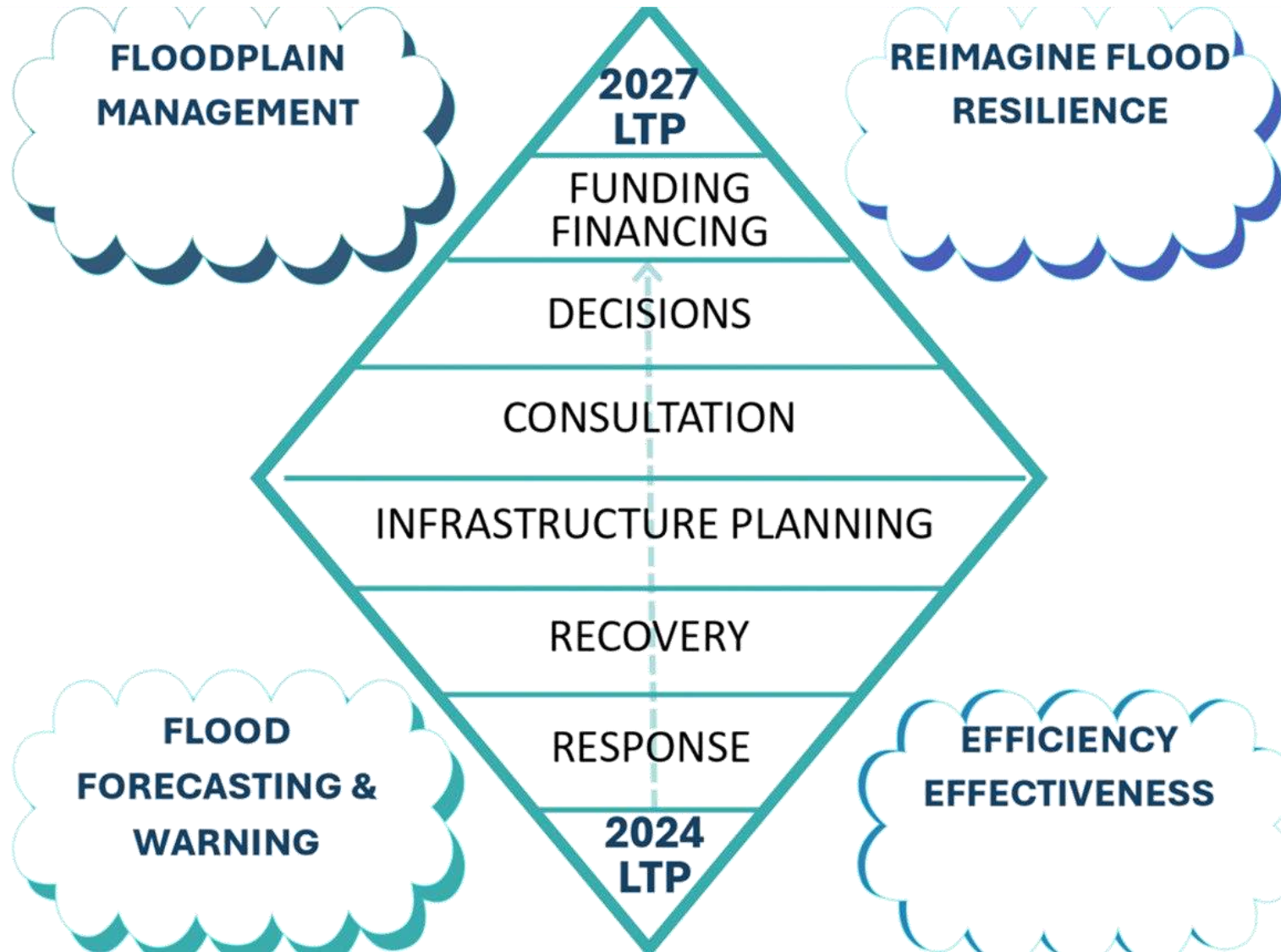
## 2018 LTP

Maintain BAU  
Benchmarking to prepare for 2021 LTP

## 2021 LTP

Covid 19- IRG Co-funding \$10.8m for \$30m programme  
Transformational change to Asset Management systems and processes  
SCADA and CCTV upgrades  
Commitment to Scheme reviews for all Schemes  
New flood forecasting tools







Cyclone Gabrielle

# Flood Scheme Repairs Strategy

DRAFT



**HAWKES BAY**  
REGIONAL COUNCIL  
TE KAUNIHĒRA Ā-ROHE O TE MATAU-Ā-MĀUI

**Vision:**  
We learn from Cyclone Gabrielle how to live with rivers safely, knowing the residual risk to people and property.

**Mission:**  
HBRC maintains a cost-effective flood control and drainage network that provides protection from frequent flooding to communities and productive land.

**Purpose:**  
This strategy aims to provide visibility of what we are doing, when and why to give Hawke's Bay communities confidence as they navigate an uncertain future following Cyclone Gabrielle.

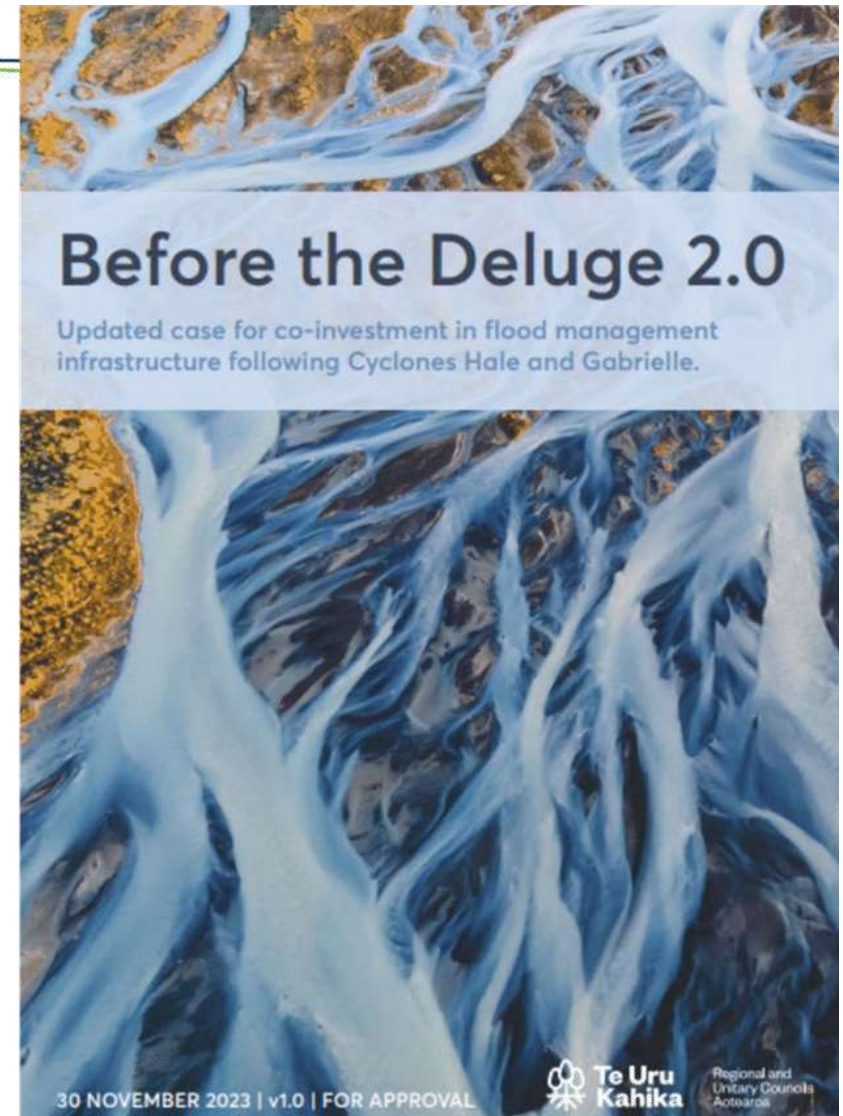
<b>Build</b>	<b>Back</b>	<b>Better</b>
Phase One:	Phase Two:	Phase Three:
0 to 9 months	6 months to 2 years	1 to 10 years
<p><b>What</b></p> <ul style="list-style-type: none"> <li>Rapid repair of stopbank breaches to agreed 1% AEP design standard pre-Gabrielle to:</li> <li>Protect people and property from frequent flooding</li> <li>Move properties from 2C* to 1</li> <li>Ensure river maintenance schemes meet agreed service levels</li> <li>Secure funding for silt and debris.</li> </ul>	<ul style="list-style-type: none"> <li>Recalibrate the 1% AEP design standard</li> <li>Restore agreed sections of stopbanks to the new 1% AEP post-Gabrielle</li> <li>Progress solutions to move properties from categories 2C and 2P to 1</li> <li>Review and improve river maintenance schemes.</li> </ul>	<ul style="list-style-type: none"> <li>Reconfigure schemes to provide resilience in future over-design events by implementing recommendations from reviews, such as flood spillways, secondary stopbanks, making room for rivers, increased protection levels for urban areas</li> <li>Progress solutions for categories 2A and 3.</li> </ul>
<p><b>How</b></p> <ul style="list-style-type: none"> <li>Complete breach repairs</li> <li>Fix scours, clear debris and drains, replant edge protection</li> <li>Survey rivers for channel capacity</li> <li>Carry out river maintenance works</li> <li>Collect silt and debris.</li> </ul>	<ul style="list-style-type: none"> <li>Use NIWA's flood frequency assessment on new return periods for each catchment</li> <li>Assess gap between new 1% AEP and actual protection level</li> <li>Engage communities on protection levels</li> <li>Prioritise physical works to protect people and property to achieve 1% AEP</li> <li>Carry out river maintenance works.</li> </ul>	<ul style="list-style-type: none"> <li>Use technical scheme reviews and independent review to capture community views and assess options</li> <li>Progress parallel workstreams for design, consenting, funding and land purchases</li> <li>Integrate infrastructure design where roads, bridges and flood protection intersect.</li> </ul>

# 2024 Reimagine Flood Resilience

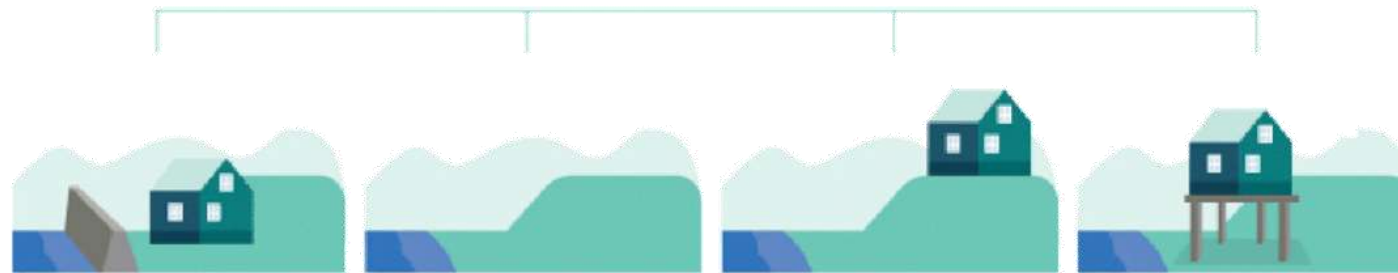
- - - - -
- Overdesign Event
  - Secondary flow paths
  - Detention of flood waters
  - Room for the river
  - Nature based solutions
  
- New and enhanced schemes through NIWE agreement
  
- Continue transformation of Asset Management
  - IPMO to deliver \$270m+ programme over 4 years
  - Go Live Enterprise Asset Management System
  - Respond to internal and external reviews
  - System and process improvements aligned ISO 55000

## Flood Resilience – step change for HBRC

- - - - -
- Heretaunga Plains Flood Control Scheme
- Upper Tukituki Flood Control Scheme
- IRG Program
  
- Before the Deluge Work Program
  - from 2028
  
- All Schemes Reviewed by 2026- fast tracked through NIWE agreement
  - Napier Urban Waterways- \$50m over 10 years



# PARA Framework



**Protect**

Staying in place and building defences, eg. stopbanks and sea walls

**Avoid**

Staying away from areas where the risk is too high, eg. restricting or preventing development and making changes to existing land use

**Retreat**

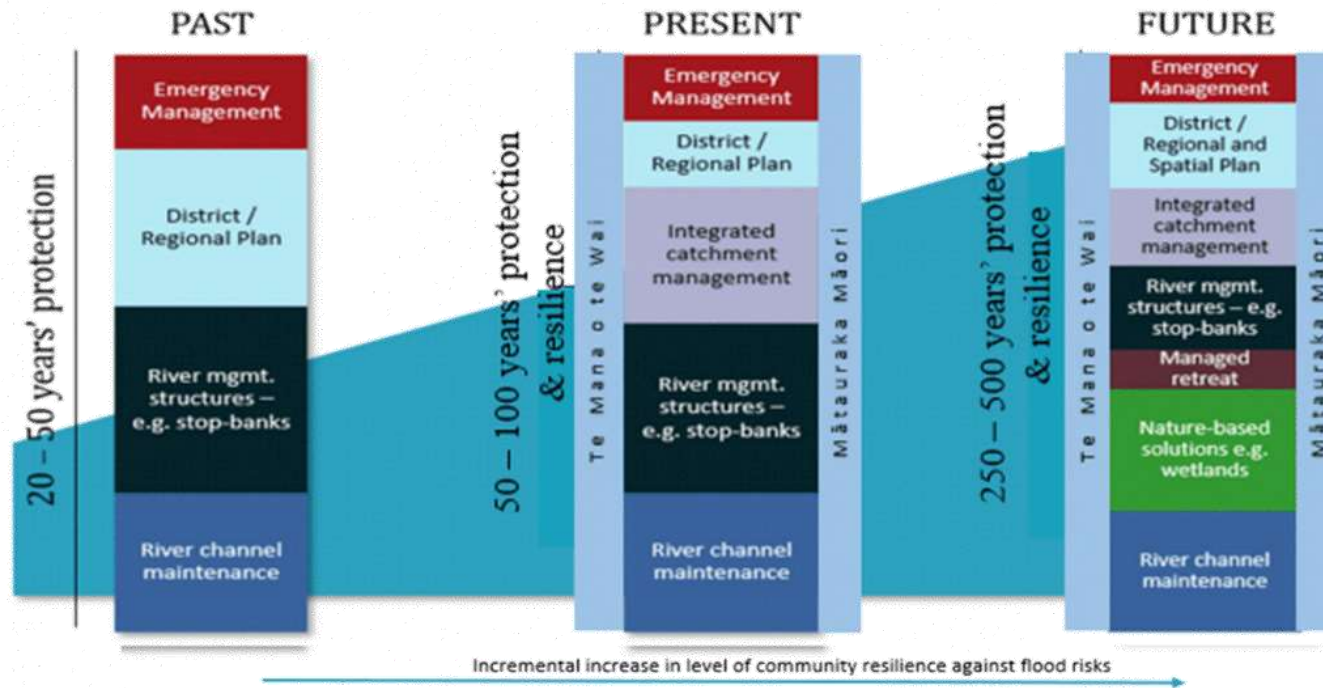
Purposely moving away from areas where the risk is too high, eg. red zoning, placing restrictions on land use and relocating community assets

**Accommodate**

Staying in place and making changes to buildings and infrastructure, to improve resilience



# Evolution of flood risk management



Regional councils apply an integrated / whole catchment / ecosystem sensitive approach to flood risk management. Resource management reform will provide additional opportunities - including the use spatial planning tools. Flood protection schemes will always be a critical component of flood risk management.

## Status of Scheme Review

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### - Scheme Reviews Underway

- Heretaunga Plains Flood Control
- Upper Tukituki
- Opoho
- Ohuia/Whakaki
- Wairoa Rivers and Streams/Nuhaka
- HPFC Karamu - HPFC Raupare/Twyford\*

### - Scheme Reviews Completed

- Napier / Meeanee
- HPFC Brookfields / Awatoto
- HPFC Pakowhai

# Status of Scheme Reviews

- - - - -
- Scheme Reviews to be undertaken
  - Upper Makara
  - Porangahau
  - Esk – Whirinaki\*
  - HPFC Haumoana / Te Awanga – Maraetotara\*
  - HPFC Muddy Creek
  - Paeroa
  - HPFC Puninga
  - Te Ngarue
  - Kairakau
  - Poukawa
  - Kopuawhara
  - Central and Southern
  - HPFC Tutaekuri Waimate / Moteo
- \*Two Schemes bundled together

## IRG Variation

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- Extension of time for next 12 months
  - Utilise \$2m to extend UTT gravel extraction scope
  - Geotech catalogue to support future work
  - Develop original projects to detailed design
    - Oamaru
    - Moteo
    - Clive River Erosion
    - East Clive
- New Project recommission Maraenui Stopbank

## Resilient River Communities

Resilient River Communities is a joint initiative between Kānoa - the Regional Economic Development & Investment Unit, regional councils, and local authorities focused on developing and upgrading vital river management and flood protection schemes in Aotearoa, New Zealand.

By having resilient river communities we hope to minimise environmental, economic, and social damage caused by flooding – making Aotearoa, New Zealand safer for everyone.

### Built by



Regional and  
Unitary Councils  
Aotearoa



Regional Economic Development  
& Investment Unit

[Projects](#)

[Projects Map](#)

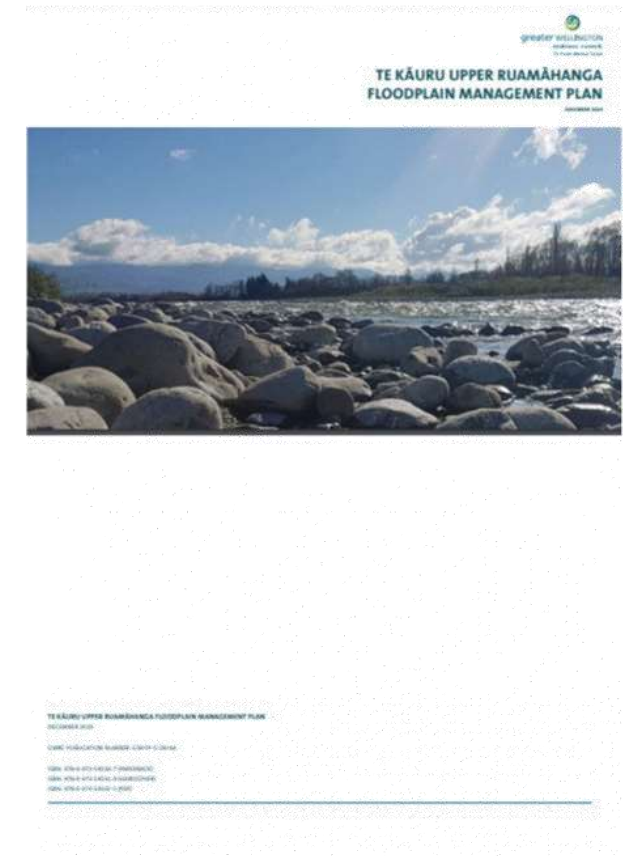
[Careers](#)

[News and Media](#)



# Flood Plain Management Plans

- - - - -
- New Flood Plain Management Plans
  - Avoid Risk
  - Reduce flood risk to people and property
  - Support resilient local economy and river scheme that is affordable and fairly funded
  - Work with district councils to coordinate long term planning outcomes
  - Recognise role of tangata whenua and their cultural values
  - Recognise environmental matters
  - Provide recreational activities
- Operational Management Plans- next stage



# Flood Forecasting and Warning

- - - - -
- New flood forecasting models
  - Work commenced 2021 now complete
  - Automated runs 1 hr 24/7
- Working with Sector (NZ) common tools and platforms
  - Metservice & NEMA
  - Standard interface- useful for non technical staff
- Improved interface with community

## HBRC Providing Value

- - - - -
- Harmonising Napier Urban Waterways
  - Two organisations providing different parts of the same network
  - Determined in 1989
  
- Consider Divest Scheme and Assets e.g.
  - Small Schemes
    - Ohuia
    - Opoho
  
  - Small Forests
    - Mahia
    - Waipawa
    - Waipukurau





# Questions

